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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,732	06/05/2000	Young-fu Chang	7-11-14-2-10-4	7880

7590 03/10/2004
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EXAMINER

FERGUSON, KEITH

ART UNIT PAPER NUMBER

2683

DATE MAILED: 03/10/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,732

Applicant(s)

CHANG ET AL.

Examiner

Keith T. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Applicant's arguments with respect to claims 1-41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 1-41 are objected to because of the following informalities: The Phrase "VLR" must be defined at least once in the independence claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1,2,4-37 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sallberg in view of Hall et al., newly recited reference.

Regarding claims 1,10,12,23,24, Sallberg discloses in a wireless telecommunication system (fig. 3a)/ method for providing/receiving service features (call forwarding) for

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wireless calls (paragraph 0015, lines 16-21), comprising the steps of a switch (MSC/VLR) (fig. 3a number 320) for accessing a network for administering service features for a wireless call to or from a wireless terminal (radio) (fig. 3a number 300) (paragraph 0015 lines 16-21); and accessing a home network (fig. 3a number 305) (paragraph 0022, lines 7-8), regardless of the location of said wireless terminal (location area 305) (page 2, paragraph 0022, lines 7-8), for managing all service features in a central location (call forward gateway) (fig. 3a number 325) (pages 2-3, paragraph 0022), said home network being connected to said network (fig. 3a numbers 305, 370, 390).

Sallberg differs from claims 1, 12 and 23 of the present invention in that it does not disclose accessing (i.e. by a switch) a packet data network from a wireless network by issuing a feature service request into said packet data network for administering service features for a wireless call without use of a VLR to or from a wireless terminal in a home network; managing all service features in a central location by delivering said feature request to a feature server located in said home network. Hall et al. teaches accessing (i.e. by a switch) (MSC) a packet data network (PDN, internet, etc.) from a wireless network by issuing a feature service request into said packet data network for administering service features for a wireless call without use of

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a VLR to or from a wireless terminal in a home network (fig. 1 and col. 7 lines 24-50); managing all service features in a central location (MSC) by delivering said feature request to a feature server (HLR) located in said home network (col. 7 lines 24-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Sallberg system with accessing (i.e. by a switch) a packet data network from a wireless network by issuing a feature service request into said packet data network for administering service features for a wireless call without use of a VLR to or from a wireless terminal in a home network; managing all service features in a central location by delivering said feature request to a feature server located in said home network in order for the system to excess and receive information from the internet without having to do a background check of the wireless terminal within the MSC which saves time and resources and to manage all internet features within the home network which speeds internet connection to the wireless terminal, as taught by Hall et al..

Regarding claims 32-35, Sallberg discloses in a wireless network switch in a wireless network, (fig. 320), a method for providing service features (call forwarding) for wireless calls (paragraph 0015, lines 16-21), comprising the steps of

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establishing a connection to a data (internet) network (paragraph 0025 lines 1-3); establishing a connection to a wireless terminal (paragraph 0025 lines 1-15); in response to a call to or from a wireless terminal in a local network (single wireless network) (location area) connected to a packet data network (fig. 3a number 390) (page 2, paragraph 0021), sending a service feature (call forwarding) request across said network to a server adapted to administer service features for said wireless terminal (page 2, paragraph 0021 lines 7-17); responding to said service feature (page 2, paragraph 0021 lines 7-17 and pages 2-3, paragraph 0022). Sallberg differs from claims 32 and 34 of the present invention in that it does not disclose a switch for accessing a packet data network for administering service features without use of a VLR. Hall et al. teaches a switch (MSC) for accessing a packet data network for administering service features without use of a VLR (fig. 1 and col. 7 lines 25-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sallberg MSC with a switch for accessing a packet data network for administering service features without use of a VLR in order to provide a direct connection between the wireless terminal and the internet server which saves time and resources by not having to do a

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background check within the MSC when making an internet connection, as taught by Hall et al..

Regarding claims 36,37,39,40, Sallberg discloses in a wireless terminal (fig. 3a number 300) adapted for communication in a wireless network (fig. 3a), a method for providing service features (call forwarding) to said wireless (paragraph 0021 and paragraph 0025 lines 1-18), the steps of in response to a call to or from a wireless terminal in a local network (single wireless network) (location area) connected to a packet data network (fig. 3a number 390) (page 2, paragraph 0021), sending a service feature (call forwarding) request across said network to a server adapted to administer service features for said wireless terminal (page 2, paragraph 0021 lines 7-17 and paragraph 0025 lines 1-18); and returning a service feature response to said local network (page 2, paragraph 0021 lines 7-17, pages 2-3, paragraph 0022 and paragraph 0025 lines 1-18). Sallberg differs from claims 36 and 39 of the present invention in that it does not disclose providing service features to said wireless terminal without use of a VLR. Hall et al. teaches a mobile station for accessing a packet data network for receiving service features without use of a VLR (fig. 1 and col. 7 lines 25-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify Sallberg wireless terminal with accessing a packet data network for administering service features without use of a VLR in order for the wireless terminal to have a direct connection between to the internet server which saves time by not having to do a background check within the MSC when receiving an internet connection, as taught by Hall et al..

Regarding claims 2 and 13, Sallberg discloses said home network is a home network associated with said wireless terminal (page 2, paragraph 0022, lines 7-8).

Regarding claims 4 and 15, Sallberg discloses said feature server consulting a home location register database in said home network (page 2, paragraph 0022, lines 7-8).

Regarding claims 5 and 16, Sallberg discloses said feature server passing service feature control to a packet data feature server that is local to said wireless terminal (page 2, paragraph 0021, lines 7-18).

Regarding claims 6,11 and 22, Sallberg discloses accessing said data network from a local network (wireless network) (fig.

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3a number 305) to which said mobile terminal is connected (fig. 3a).

Regarding claims 7 and 18, Sallberg discloses said data network accessing step, said home network accessing step, and switch are performed on a call-by-call basis (i.e. when a call is made or call connection) (page 2, paragraphs 0021 and 0022).

Regarding claims 8 and 19, Sallberg discloses said wireless call is a voice call (page 1, paragraph 0002).

Regarding claims 9 and 20, Sallberg discloses said wireless call is a data call (data communication) (page 2, paragraph 0015).

Regarding claims 14, 21 and 25, Sallberg discloses said home network is a home network associated with wireless terminals of plural wireless networks (fig. 3a number 390 and 350).

Regarding claim 17, Sallberg discloses said switch is adapted to access said data network from a local network to which said mobile terminal is connected (fig. 3a numbers 320, 390 and 305).

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Regarding claims 26 and 29, Sallberg discloses in a data network feature server (internet/voice gateway server) (fig. 3a numbers 330 and 440) (page 2, paragraph 0021), a method for providing service features for wireless calls) (page 2 and 3, paragraphs 0021 and 0025), comprising the steps of storing service feature logic for a plurality of wireless terminals (HLR or VLR) (inherent, taught on page 2, paragraph 0022 lines 4-7 and page 3 paragraph 0025); communicating service feature messages via a data network (internet) with a switch (MSC/VLR) located in a wireless network (page 3, paragraph 0025), said switch being in communication with a wireless terminal whose service feature logic is maintained by said feature server (page 2 and 3, paragraph 0022 and 0025); and communicating, as necessary, service feature messages via a data network with said wireless terminal (page 2 and 3, paragraph 0022 and 0025). Sallberg differs from claims 26 and 29 of the present invention in that it does not disclose providing service features for wireless calls without use of a VLR, and communicating service feature messages via a data network with a switch located in a wireless network in response to a service feature request sent by said switch over said data network. Hall et al. teaches providing service features for wireless calls without use of a VLR (fig. 1), and communicating service feature (packet data) messages via a data

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network with a switch (MSC) located in a wireless network in response to a service feature request sent by said switch over said data network (col. 7 lines 23-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sallberg internet/voice gateway server with providing service features for wireless calls without use of a VLR, and communicating service feature messages via a data network with a switch located in a wireless network in response to a service feature request sent by said switch over said data network in order to rout internet calls faster without having to check the visiting location register, and to provide mobile internet service by a wireless provider to the wireless terminal, as taught by Hall et al..

Regarding claims 27 and 30, Sallberg discloses determining whether additional service feature information (ms has purchase call forwarding) (control programming) is required for said wireless terminal (page 3, paragraph 0022 lines 1-6), and obtaining such information from a service feature information resource (voice gateway) that is in communication with said feature server (page 2 lines 7-26 and page 3, paragraph 0022 lines 1-6).

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Regarding claims 28 and 31, Sallberg discloses determining whether local feature service is required for said wireless terminal (page 2 and 3 paragraph 0022), and if so, passing service feature control to a local feature server (MSC/VLR) associated with said wireless network (page 3 paragraph 0022, lines 1-6 and paragraph 0025).

4. Claims 38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sallberg in view Hall et al. as address in claims 36,37,39 and 40 above and in further view of Hartmaier.

Regarding claims 38 and 41, The combination of Sallberg and Hall et al. differs from claims 38 and 41 of the claimed invention in that they do not disclose means for performing a look-up of a data network address. Hartmaier teaches means (network node) for performing a look-up of a data network address (abstract and col. 2 lines 20-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made To provide the combination of Sallberg and Hall et al. means for performing a look-up of a data network address in order to rout a call forward feature through a data network by checking an internet address to the mobile station, as taught by Hartmaier.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (703) 305-4888. The examiner can normally be reached on 6:30am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson 

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March 5, 2004